CLAIMS:

1. Lithographic apparatus comprising:

a first illumination system for providing a projection beam of radiation;

a support structure for supporting a patterning device, the patterning device serving to impart the projection beam with a pattern in its cross-section;

a substrate table for holding a substrate;

a projection system for projecting the patterned beam onto a target portion of the substrate; and

a second illumination system for providing a compensating beam of radiation to a predetermined area on the substrate, an intensity of the compensating beam being varied across said predetermined area.

2. The apparatus of claim 1, wherein the intensity of the compensating beam varies substantially linearly across said predetermined area.

3. The apparatus of claim 1, wherein the predetermined area is an edge region of the substrate and the intensity of the compensating beam increases towards the edge of the substrate.

4. The apparatus of claim 1, wherein the predetermined area is an edge region of the substrate and the intensity of the compensating beam decreases towards the edge of the substrate.

5. The apparatus of claim 3, wherein the substrate is substantially circular in shape and the intensity of the compensating beam preferably varies substantially linearly in a radial direction in relation to the substrate so as to increase towards the edge of the substrate.

6. The apparatus of claim 4, wherein the substrate is substantially circular in shape and the intensity of the compensating beam preferably varies substantially linearly in a radial direction in relation to the substrate so as to decrease towards the edge of the substrate.

7. The apparatus of claim 1, wherein the substrate table is formed and arranged to rotate the substrate during exposure with the compensating beam so that an annular area of the substrate is exposed with the compensating beam.

8. The apparatus of claim 1, wherein a second substrate table is provided for holding the substrate during exposure of said predetermined area of the substrate with said beam of compensating radiation.

9. The apparatus of claim 8, wherein the second illumination system and the second substrate table are provided in a separate portion of the apparatus to the first illumination system, the support structure, and the projection system.

10. The apparatus of claim 1, wherein the second illumination system is provided in the form of an Optical Edge Bead Removal (OEBR) system adapted to provide said compensating beam of radiation.

11. A device manufacturing method comprising:
providing a projection beam of radiation;
patterning the projection beam with a pattern in its cross-section; and
projecting the patterned beam of radiation onto a target portion of a substrate,
wherein before the patterned beam of radiation is projected on to the target portion of the substrate, a beam of compensating radiation is irradiated on to a predetermined area of the substrate, the beam of compensating radiation having an intensity which varies across said predetermined area.

12. The device manufacturing method of claim 11, wherein the intensity of the beam of compensating radiation varies across said predetermined area so as to substantially correct for variation in a predetermined device performance characteristic which would otherwise occur in a plurality of devices to be formed in said predetermined area of the substrate.

13. The device manufacturing method of claim 11, wherein the intensity of the beam of compensating radiation varies across said predetermined area so as to substantially correct for variation in CD profile which would otherwise occur across said predetermined area of the substrate.

14. The device manufacturing method of claim 11, wherein the beam of compensating radiation has an intensity which varies substantially linearly across said predetermined area.

15. The device manufacturing method of claim 11, wherein the predetermined area is an edge portion of the substrate.

16. The device manufacturing method of claim 11, wherein the substrate is substantially circular in shape and the intensity of the compensating beam increases in a radial direction relative to the substrate so as to increase towards the edge of the substrate.

17. The device manufacturing method of claim 11, wherein the substrate is substantially circular in shape and the intensity of the compensating beam decreases in a radial direction relative to the substrate so as to decrease towards the edge of the substrate.

18. The device manufacturing method of claim 11, wherein the method further includes rotating the substrate during irradiation with the compensating beam so that an annular edge region of the substrate is irradiated with the compensating beam.

19. The device manufacturing method of claim 11, wherein the beam of compensating radiation is provided by an Optical Edge Bead Removal (OEBR) system adapted to provide a beam of radiation having a varying intensity in cross-section.

20. A device manufactured by the lithographic apparatus of claim 1.

21. A device manufactured according to the device manufacturing method of claim 11.